sure you will then give them more attention. Anticipation is one of the greatest virtues of a nurse,—to prevent the patient asking for things, to stop reading before they say they are tired, to know when the open window is too cool, to think of the extra blanket in the chill of early morning, turning a heated pillow before they know what it is that troubles them,—these show the intuitive nurse.

Sympathy cannot be placed among the little things, it is one of the great things, almost, we might say, the key-stone of private nursing, and yet, alas! how many nurses lack this essential. We hear complaint of its lack on all sides, and the sad part of it is that it is too true to deny it.

Personally I would never employ a nurse who said she did not like her work, as so many do even to their patients' families. No doubt she would watch my pulse carefully enough, but sympathy needs to go hand in hand with medical science.

Nurses are too prone to let their work degenerate into a mere money-making employment. This it should never be. It requires too much of personal feeling, tact, sympathy, and self-sacrifice. The nurse's whole heart needs to be in it to make her a success, and she who wants only the money had better take up typewriting, for she is a useless commodity, a stumbling-block in the road of the true nurse, and a constant annoyance to the sick, although the doctor keeps her busy because she makes a good appearance and is scientifically correct.

(To be continued.)

STANDARDS OF LIVING*

By MARGARET DAVIDSON

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If we accept the conclusion of the thoughtful students of human evolution and assume that what is represented by the term "home" is the germ of Anglo-Saxon civilization, the unit of social progress; that no community rises above the average of its individual homes in intelligence, courage, honesty, industry, thrift, patriotism, or any other individual or civic virtue; that the home is the nursery of the citizen; that nothing which church, school, or State can do will quite make up for the lack in the home,—then we must acknowledge that no subject can be of greater importance than a discussion of the standards involved

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in home-life, and therefore no apology is needed from me for my subject, but only for my attempting to present it to you.

Man, as an uplifting, compelling force in the world, does not "live by bread alone," but in all ages has won his place by the ideals he has put far ahead and above him, and for which he has valiantly striven. "A man's reach should exceed his grasp, or what's a heaven for?" The man without a conscious aim slowly but surely degenerates. Habits of life have been allowed to lapse into those of savagery, where the present only guides action. Human life is so short, and human endeavor so weak, that the incentive to provide for his own personal future would not be sufficient to urge to the full capacity any man's power. To gain a home for wife and children, to secure an education for son or daughter, for the family he will strive, and thus gain the reward that comes with striving; for it is not the possession of a given thing which yields the most satisfaction, it is the contest which precedes possession. Our premises are, then, that the individual family group must be maintained,—that is, that the ideal must be preserved, not the mere shell,—and that in a manner consistent with modern progress.

If this Anglo-Saxon ideal of home life is to be maintained, the housekeeper must take the conscious direction of it, and so order it as to secure not only the most economical but the most efficient results—not in lavish display, not in a large bank account, but in the best developed men and women, the product of that home. Standards of living should be measured, not by money spent, not by servile imitation of others, but by that which will produce the best results in health of body and health of mind.

The economic changes which took all interesting occupations out of the home came too rapidly for a readjustment of habits; women were freed too suddenly, and have not yet recovered a proper balance A higher plane of civilization has been reached, and women must take the step up. It is like the child of the Kindergarten, who carries home with such delight the work of its hands, and the student of the upper grades. The Kindergarten stage is left behind, and childish things must be put away. To-day the daily routine of the home life is largely the clearing away of débris, the incessant warfare with dirt, with no constructive work. There is nothing tangible to show for the day's work—only healthy, happy lives! Women must go into the advanced class, put aside the merely childish way of looking at things, and see the end to be attained—a sufficient incentive.

Woman's greatest disqualification for the position of housekeeper is her lack of knowledge of and respect for science and the laws of nature. Give her an education in the laws which govern the processes

of daily life—in chemistry, in physics, in biology, in physiology and bacteriology. Let her once acquire this knowledge, let her once gain perfect control of her machinery, feel it yield under her hand, know her power, and we shall hear no more of domestic difficulties so great as to cause hundreds of housewives to retreat into hotels and apartment houses. For she will then know how to infuse into the work of the house that interest and enthusiasm which it has lost.

That the household is held by popular opinion to be a place of menial service and petty, degrading duties, and not the centre of high and lofty ideals of health and happiness, is proved by the scant courtesy which domestic science, or home economics (call it what you will), as a branch of girls' education receives. That the household is not run on scientific principles is acknowledged by the neglect of it in the study of economics.

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The twentieth-century household demands of its manager:

First.—A scientific understanding of the sanitary requirements of a human habitation. That includes, or presupposes, a knowledge of soils, drainage, plumbing, heating, and ventilation. Sanitary rules say that the soil should be clean, dry, and porous; that light and air must have access freely; that water should be supplied and quickly removed when used. How many think of these things, or, if they do, weigh them in the balance with fashion as to street or the style of the porch? Much of the expense complained of in modern plumbing is caused by neglect of the most obvious precautions.

Second.—A system of account-keeping that shall make possible a close watch upon expenses.

Since the object of all endeavor to get wealth is to use it, and the use of the most of it is in connection with home life, it is evident that the household and its management is the most important factor in national prosperity. There must be a thoughtful division of the income. Rent, food, clothes,—running expenses,—must each receive a share. The unexpected forms a large part of life. No good manager is without a fund to draw upon for emergencies. Debt usually comes because the fund has not been reserved. Moreover, for an ideal, any sacrifice is a pleasure. For an ideal, men will strive and win success when otherwise they would sink into inaction. In the division of the income, then, a place must be given to ideals. One great advantage of this recognition is the incentive to thoughtful foresight which it engenders. The woman will not haunt the bargain counter if she has a fixed determination to lay aside a portion of the income for the satisfaction of the needs of the higher nature.

Third.—An ability to secure from others the best they have to give, and to maintain a high standard of honest work.

This includes a comprehension of the inexorable laws of power and energy. There is too often the vain endeavor to make one pair of hands do the work of two; too often the element of slavery in the work of the house; too often a disregard for the mechanical efficiency of the human machine. One can hardly blame young women for going into factories, shops, and offices, where their work is measured by law and not by caprice.

Fourth.—A knowledge of the science of nutrition.

This includes the composition and classification of food, the function performed by each class in the body, the physiological effects of all, and the preparation by wholesome cookery.

To recapitulate, the modern housekeeper, if she is to fulfil her duties to the community in which she lives and to the State whose laws protect her, must know how to choose her home, and, having chosen it, must so order it that the satisfaction of the human wants as well as the animal needs shall be as complete as possible.

In a short paper like this it would be impossible to dwell at greater length on each of these points; my object has simply been to suggest something of the ideal which I have set before me and am aiming at reaching in the training of housekeepers. But on the subject of nutrition, which is perhaps common ground for the nurse and housekeeper, I would like to dwell a little longer.

If the proper study of mankind is man, then the study of that which makes him a capable, efficient member of society, and not a wretched dyspeptic or a shell of walking contagion, is worthy a place in any curriculum.

It is just as wrong to ignore food or to hold it of little value as to consider it too much. The health of the human body means sufficient food if the individual is to do his or her work in the world. The well-nourished child is a happy, strong little animal, making brain and muscle and nerve for future use. The well-nourished adult is a hearty, efficient member of society, contributing his share to the common stock of public good, as well as enjoying his own work and pleasure.

Ten years ago or more Elias Metchnikoff, the eminent Russian pathologist, undertook an exhaustive study of inflammations. Whether they occurred from wound or from disease, he noted the presence in large numbers of the white corpuscles which float about in the blood and lymph. To these he gave the name of "phagocytes," the devouring cell. Against the invading hosts of disease the phagocytes go out to battle—to conquer or die. Now, the condition of this army of phago-

cytes, like that of any other, depends on its commissariat. If the food supply is just right, the soldiers are vigorous; if it is wrong in any particular, they are weakened. The protecting army may be incapacitated in any one of three ways:

First, by over-nutrition. By indulgence in food the body tissues are weakened by the strain of excess. I put this first because it is the belief of most students of economics and sociology that it is the overfed among the nine-tenths not submerged who are being eliminated by the various diseases of modern life—apoplexy, heart disease, Bright's disease, etc.

Second, by under-nutrition. The day has long since passed when fasting can be regarded as favoring either clearness of intellect, muscular strength, or endurance. And it is asserted that the physical and mental decay of whole nations can be traced to a long course of insufficient food.

Third, by improperly balanced ingredients of diet. A person who eats a large bulk of food of one class to the exclusion of other classes may delude himself by thinking that he is taking nourishment enough on account of the degree of satiety which he derives from his diet, but in reality he is merely pleasing his palate. It may be true that the sense of taste is as much worth cultivating as that of sight or hearing, but if one resolves to go in for luxury, it is well to do so knowingly, and not imagine that one is nourishing the body when one is merely pleasing the taste. The evil results of such diet are apparent in constipation, anæmia, etc., but, perhaps, more apparent in the feeding of infants and young children. The commonest fault in feeding young children consists in giving them too much starchy food, which they cannot as yet digest, and the innumerable prepared infant foods, consisting largely of starches and sugars, are responsible for much trouble. Gilman Thompson says: "It is a significant fact that the country which furnishes most of the literature of scorbutus in children is the same which is posted from end to end with advertisements of proprietary foods." And scurvy is only one of the diseases resulting from a poorly balanced diet. Marasmus, rickets, and eczema are also of common occurrence. Food habits should be formed by young children under careful guidance. Until that is so, the child will grow up with whims and fancies which will prevent the best physical development. Hence the absolute necessity for every housemother to know something of the science of nutrition.

The important relation of food to disease in regard to its quantity and composition, as well as the frequency and method of its administration, are becoming more and more thoroughly appreciated. This

is owing, on the one hand, to improved methods of diagnosis and to modern means of clinically discriminating between different kinds of gastric and intestinal indigestion, and, on the other hand, to an increasing knowledge of the chemistry of food, of food preparation by cooking, and of artificial digestion. There is still much difference of opinion in regard to the best dietaries for certain diseases,—such as, for example, gout and obesity,—but the general principles of dietetics are to-day well established, and more widely understood and practised than ever before.

It may be asserted, Gilman Thompson says, that there is almost no disease of long duration and severity, and certainly no disease accompanied by grave constitutional disturbances, the course of which cannot in a measure be controlled or benefited by thorough study of the nature and uses of foods.

Such diseases as tuberculosis and diabetes, for example, are more successfully combated from the dietetic standpoint than from the medicinal. The aim of treatment in the first is to render "the soil" for the tubercle bacillus more resistant. It is, unfortunately, not yet positively known what substances are destructive of the life of the tubercle bacillus, but there is some reason to believe that fat is antagonistic to its life. It is suggested that the fat absorbs the oxygen required for the active multiplication of the micro-organisms. What is well-known, however, is that if wasting can be checked and the weight of the patient increased, the disease is held at bay, if not cured.

Carbohydrates, which ordinarily furnish a large proportion of the energy of the body, in tuberculosis appear to do so less readily than the fats and proteids. Young girls particularly, as a rule, crave sweets and confectionery and despise the more wholesome animal food. If any gastric catarrh exist, such a diet only acts as an irritant. How important, then, to know the value of fat in the diet of such a patient, and to be able to administer it in tactful, palatable ways.

Again, in a state of health the starchy and saccharine substances which form important constituents of our daily food undergo complete conversion in the system, and then are wholly appropriated and utilized in the body in the production of force. None, or practically none, passes out of the healthy body as sugar. In the disease known as diabetes it is otherwise. The liver, which exercises a sugar-detaining and sugar-assimilating function, has lost its power. A more or less notable quantity of sugar is excreted, and from observation the amount which escapes from the body unconsumed is usually proportioned to the amount of starchy and saccharine substances taken in the food. This universally admitted fact is the basis of all the dietetic rules which have

been applied to the treatment of this disease—that is, the elimination, as far as is consistent with the due nutrition of the body, of all those articles of food that can be converted in the organism into sugar and the substitution of albuminous foods and fats. The absolute necessity for a knowledge of the composition of food materials is surely plainly demonstrated.

Sir Henry Thompson, the eminent English dietist, says: "It is certain that an adequate practical recognition of the value of proper food to the individual in maintaining a high standard of health, in prolonging healthy life (the prolongation of unhealthy life being small gain either to the individual or to the community), and thus largely promoting cheerful temper, prevalent good nature, and improved moral tone, would achieve almost a revolution in the habits of a large part of the community."

EXPERIENCES IN ARMY NURSING

By J. D. M.

Previous to the outbreak of the Spanish-American War the United States Government had maintained a strict neutrality with the island of Cuba (although United States *citizens* for seventy-five years had taken a keen interest in her affairs) until events that preceded and followed the destruction of the battle-ship Maine in April, 1898, in Havana harbor led to armed intervention. Then it was that enthusiasm ran high all over our country to avenge an act that looked as though it had been premeditated, and thousands of American citizens answered the call to arms, volunteering to don the uniform and fight for the flag.

Of course, among such large bodies of men sickness prevailed, and many were wounded by the enemy's bullets. At this time many nurses from recognized and well-established hospital training-schools caught the fever of enthusiasm and "shouldered the musket," as one physician put it when I told him I was going to the front to help care for the sick soldiers in Uncle Sam's army. But how different was the stern reality from my day-dreams of a nurse's life on the battle-field!

My first call to duty in the United States army, after my application had gone in to Washington, D. C., was to Fort Thomas, Ky., on August 13, 1898, where I remained until September 21 of the same year. All of my nursing there was amongst typhoid-fever cases, mostly all of whom were brought up from the camps farther south, where typhoid had become epidemic. Just as we got things in good running